Land-Tech
LANDFILL TECHNOLOGIES OF ARECIBO, LLC.

March 1, 2021.

Steven T. Petrucelli
Enforcement Officer
RCRA Compliance Branch
USEPA Region 2
290 Broadway 21st Floor
New York, NY 10007-0587
By email to petrucelli.steven@epa.gov

RE: CAA SEMIANNUAL REPORT
UNITED STATES V. LANDFILL TECHNOLOGIES OF ARECIBO, CORP.
CONSENT DECREE CIVIL NO. 3:14-CV-01438;
DOJ CASE NO. 90-5-2-1-09629.

Dear Mr. Petrucelli:

Pursuant to Section VI, CAA Injunctive Relief, of the Consent Decree Civil No. 3:14-cv-01438, Landfill Technologies of Arecibo, LLC[1] (LTA), submits the following information:

1. Calibrations of the equipment used to monitor data. *Exhibit 1.*

2. Surface Methane Gas Monitoring, Quarterly Event Report: July to September. *Exhibit 2*

[1] Previously, Landfill Technologies of Arecibo, Corp.

3. Surface Methane Gas Monitoring, Quarterly Event Report: October to December 2020. *Exhibit 3.*

4. Monthly Monitoring, Gas Extraction Wells: July to December 2020. *Exhibit 4.*

5. Start Up, Shut Down and Malfunction Report: July to December 2020. *Exhibit 5.*

If additional information is required, please don't hesitate to contact LTA at your convince at 787-273-7639 or via email, Javier Vázquez, Esq. jvazquez@landfillpr.com.

Best Regards,

Javier J. Vázquez Bravo, ESQ.
Vice-president of Operations

Cc. United States Department of Justice,
Chief Environmental Enforcement Section
Donald Frankel
Via email Donald.frankel@usdoj.gov

EPA, CAA

EPA RCRA,
Carl Plössl;

EPA ORC,
Carolina Jordan-Garcia, Esq.
Via email jordan-garcia.carolina@epa.gov

EQB,
Eng. Luis Sierra

PRLA,
Alberto L. Ramos.

Arecibo Municipality
Mayor

EXHIBIT 1

LANDFILL TECHNOLOGIES OF ARECIBO, LLC

Certifications of Calibration

Bo. Mamey, Carretera 189 km. 9.0, Gurabo, PR 00778 • PO Box 1322 Gurabo, Puerto Rico 00778 • Tel. (787) 273-7639 • Fax (787) 687-0337

PRODUCT QUALITY CERTIFICATE OF CONFORMANCE

Product Inspection & Quality Statement

All individual parts and components which make up the product being provided have been inspected and approved for manufacture. In addition, subassemblies have been inspected, tested, and accepted for final assembly. Each completed assembly has been final tested and approved for shipment.

Conformance Statement

SAGE Metering Incorporated certifies this instrument was tested in compliance with ANSI/NCSL Z540 and ISO/IEC 17025 requirements. SAGE Metering, Inc. calibration services are derived from MIL-STD-45662A. The Prime DC24 model is Met Labs approved and Met Labs is a Nationally Recognized Testing Laboratory (NRTL) which is recognized by OSHA. The tests are performed using measuring & test equipment with certified NIST traceability. (Applicable NIST numbers are available upon request). Reproduction of the complete certificate is allowed. Parts of the certificate may only be reproduced after written permission is granted by SAGE Metering, Inc.

CUSTOMER:	Excellent Engineering Equipment, Inc.	
PURCHASE ORDER:	219239 / RMA 201812	
SAGE SALES ORDER:	25319	
MODEL:	SIP-05-12-DC24-BIOGAS-FC	
POWER REQUIREMENT:	DC24	
OPTIONAL OUTPUT:	Flow, 4 - 20mA	100 SCF/PULSE, 250 ms
SAGE UNIT/SENSOR SERIAL NUMBERS:	72551-38876	Slave ID = 31 HEX, 49 DEC
TAG:		
PRIME BAUD RATE / PRIME PARITY	19200.00	EVEN
SUGGESTED CALIB/VALIDATION INTERVAL:	12 months after Calibration	
CALIBRATION DATE:	7/16/2019	
OPERATING PRESSURE RANGE:	(14.7 PSIA + PSIG) ± 20%	
MAXIMUM PRESSURE RATING:	500 PSIG	
SENSOR TEMPERATURE RANGE:	STD: -40 to 200 F	
ELECTRONICS TEMPERATURE RANGE:	0° to +150°F (-18° to +65.56°C)	
ACCURACY AT THE NORMAL 100:1 TURNDOWN:	+/- 1% Rdg + 0.5% FS	
CALIBRATION REFERENCE CONDITIONS:	70°F and 29.92" Hg	
PROCESS GAS / PROCESS GAS SPECIFIC GRAVITY	BIOGAS: (58% CH4, 38% C02, 0.9416	
PROCESS FLOW (FS, 4-20 mA)/LowFlowCutoff	0 - 1,000 SCFM	
CALIBRATED FLOW	1000 SCFM	
PROCESS LINE SIZE	6 in sch 10	
PROCESS TEMPERATURE:	120 F	
PROCESS PRESSURE:	60 INH2OG	
CALIBRATION TECHNICIANS:	GF	
ROOTS METERs	8C175 - SN 1628163; 23M232 - SN 1623164	

SPECIAL NOTES:

SOFTWARE REV#	2.06	
AMBIENT AIR ZERO in mW/GAS FLOW ZERO in mW	73	77
Flow Conditioner Required		

Authorization: _____ Date: July 16, 2019

PRODUCT QUALITY CERTIFICATE OF CONFORMANCE

Product Inspection & Quality Statement

All individual parts and components which make up the product being provided have been inspected and approved for manufacture. In addition, subassemblies have been inspected, tested, and accepted for final assembly. Each completed assembly has been final tested and approved for shipment.

Conformance Statement

SAGE Metering Incorporated certifies this instrument was tested in compliance with ANSI/NCSL Z540 and ISO/IEC 17025 requirements. SAGE Metering, Inc. calibration services are derived from MIL-STD-45662A. The Prime DC24 model is Met Labs approved and Met Labs is a Nationally Recognized Testing Laboratory (NRTL) which is recognized by OSHA. The tests are performed using measuring & test equipment with certified NIST traceability. (Applicable NIST numbers are available upon request). Reproduction of the complete certificate is allowed. Parts of the certificate may only be reproduced after written permission is granted by SAGE Metering, Inc.

CUSTOMER:	**Excellent Engineering Equipment, Inc.**	
PURCHASE ORDER:	**219189 / RMA 200858**	
SAGE SALES ORDER:	**25192**	
MODEL:	**SIP-05-12-DC24-FC-BIOGAS**	
POWER REQUIREMENT:	**DC24**	
OPTIONAL OUTPUT:	**Flow, 4 - 20mA**	**100 SCF/PULSE, 250 ms**
SAGE UNIT/SENSOR SERIAL NUMBERS:	**85117-44527**	**Slave ID = 31 HEX, 49 DEC**
TAG:		
PRIME BAUD RATE / PRIME PARITY	**19200.00**	**EVEN**
SUGGESTED CALIB/VALIDATION INTERVAL:	**12 months after Calibration**	
CALIBRATION DATE:	**5/22/2019**	
OPERATING PRESSURE RANGE:	**(14.7 PSIA + PSIG) ± 20%**	
MAXIMUM PRESSURE RATING:	**500 PSIG**	
SENSOR TEMPERATURE RANGE:	**STD: -40 to 200 F**	
ELECTRONICS TEMPERATURE RANGE:	**0° to +150°F (-18° to +65.56°C)**	
ACCURACY AT THE NORMAL 100:1 TURNDOWN:	**+/- 1% Rdg + 0.5% FS**	
CALIBRATION REFERENCE CONDITIONS:	**70°F and 29.92" Hg**	
PROCESS GAS / PROCESS GAS SPECIFIC GRAVITY	**BIOGAS: (58% CH4, 38% CO2, 0.9416**	
PROCESS FLOW (FS, 4-20 mA)/LowFlowCutoff	**0 - 1,000 SCFM**	
CALIBRATED FLOW	**1000 SCFM**	
PROCESS LINE SIZE	**6 in sch 10**	
PROCESS TEMPERATURE:	**120 F**	
PROCESS PRESSURE:	**60 INH2OG**	
CALIBRATION TECHNICIANS:	**GF**	
ROOTS METERs	**8C175 - SN 1628163; 23M232 - SN 1623164**	
SPECIAL NOTES:		
SOFTWARE REV#	**2.09**	
AMBIENT AIR ZERO in mW/GAS FLOW ZERO in mW	**71**	**74**
Flow Conditioner Required		

Authorization: _____ **Date:** **May 22, 2019**

PRODUCT QUALITY CERTIFICATE OF CONFORMANCE

Product Inspection & Quality Statement

All individual parts and components which make up the product being provided have been inspected and approved for manufacture. In addition, subassemblies have been inspected, tested, and accepted for final assembly. Each completed assembly has been final tested and approved for shipment.

Conformance Statement

SAGE Metering Incorporated certifies this instrument was tested in compliance with ANSI/NCSL Z540 and ISO/IEC 17025 requirements. SAGE Metering, Inc. calibration services are derived from MIL-STD-45662A. The Prime DC24 model is Met Labs approved and Met Labs is a Nationally Recognized Testing Laboratory (NRTL) which is recognized by OSHA. The tests are performed using measuring & test equipment with certified NIST traceability. (Applicable NIST numbers are available upon request). Reproduction of the complete certificate is allowed. Parts of the certificate may only be reproduced after written permission is granted by SAGE Metering, Inc.

CUSTOMER:	**Excellent Engineering Equipment, Inc.**	
PURCHASE ORDER:	**219189**	
SAGE SALES ORDER:	**25192**	
MODEL:	**SIP-05-12-DC24-FC-BIOGAS**	
POWER REQUIREMENT:	**DC24**	
OPTIONAL OUTPUT:	**Flow, 4 - 20mA**	**100 SCF/PULSE, 250 ms**
SAGE UNIT/SENSOR SERIAL NUMBERS:	**174992-73674**	**Slave ID = 31 HEX, 49 DEC**
TAG:		
PRIME BAUD RATE / PRIME PARITY	**19200.00**	**EVEN**
SUGGESTED CALIB/VALIDATION INTERVAL:	**12 months after Calibration**	
CALIBRATION DATE:	**5/22/2019**	
OPERATING PRESSURE RANGE:	**(14.7 PSIA + PSIG) ± 20%**	
MAXIMUM PRESSURE RATING:	**500 PSIG**	
SENSOR TEMPERATURE RANGE:	**STD: -40 to 200 F**	
ELECTRONICS TEMPERATURE RANGE:	**0° to +150°F (-18° to +65.56°C)**	
ACCURACY AT THE NORMAL 100:1 TURNDOWN:	**+/- 1% Rdg + 0.5% FS**	
CALIBRATION REFERENCE CONDITIONS:	**70°F and 29.92" Hg**	
PROCESS GAS / PROCESS GAS SPECIFIC GRAVITY	**BIOGAS: (58% CH4, 38% CO2, 0.9416**	
PROCESS FLOW (FS, 4-20 mA)/LowFlowCutoff	**0 - 1,000 SCFM**	
CALIBRATED FLOW	**1000 SCFM**	
PROCESS LINE SIZE	**6 in sch 10**	
PROCESS TEMPERATURE:	**120 F**	
PROCESS PRESSURE:	**60 INH2OG**	
CALIBRATION TECHNICIANS:	**GF**	
ROOTS METERs	**8C175 - SN 1628163; 23M232 - SN 1623164**	
SPECIAL NOTES:		
SOFTWARE REV#	**2.31**	
AMBIENT AIR ZERO in mW/GAS FLOW ZERO in mW	**100**	**104**
Flow Conditioner Required		

Authorization: _____ **Date:** **May 22, 2019**

CERTIFICATION OF CALIBRATION

ISSUED BY: QED Environmental Systems, Inc. Services Facility

Date Of Calibration: June 14, 2019

Certificate Number: G503692_9/36838

PJLA Calibration

No. 66916

Approved By Signatory

Dan McCarty
Laboratory Inspection

LANDTEC

QED Environmental Systems, Inc. Services Facility,
2355 Bishop Circle West, Dexter, MI 48130
www.qedenv.com

Customer: ***DIAMOND SCIENTIFIC LLC***

PO BOX 348
MIMS, FL 32754
USA

Description: Gas Analyser

Model: GEM5000

Serial Number: G503692

Accredited Results:

Methane (CH4)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.8	0.42
15.0	14.8	0.66
50.0	49.5	1.03

Carbon Dioxide (CO2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.43
15.0	14.9	0.71
50.0	50.0	1.19

Oxygen (O2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
20.7	20.8	0.25

Gas cylinders are traceable and details can be provided if requested.

CH4, CO2 readings recorded at: 33.6 °C/92.5 °F Barometric Pressure: 28.92 "Hg

O2 readings recorded at: 23.2 °C/73.8 °F

Method of Test: The analyzer is calibrated in a temperature controlled chamber using reference gases. All analyzers are calibrated in accordance with our procedure ISP-17 using high purity grade gas.

All calibrations are performed in accordance with ISO 17025 at LANDTEC, an ISO 17025:2005 – accredited service facility through PJLA.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 102 IGC Instance: 102

LP015LNANIST

CERTIFICATION OF CALIBRATION

PJLA ACCREDITED CALIBRATION LABORATORY NO. 66916

Certificate Number
G503692_9/36838

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.

Non Accredited results:

Pressure Transducers (inches of water column)					
Transducer	**Certified (Low)**	**Reading (Low)**	**Certified (High)**	**Reading (High)**	**Accuracy**
Static	0"	0.00"	40"	39.98"	2.0"
Differential	0"	0.00"	4"	3.98"	0.7"

Barometer (mbar)	
Reference	**Instrument Reading**
0979 mbar / 28.92 "Hg	0980 mbar / 28.93 "Hg

As received gas check readings:

Methane (CH4)	
Certified Gas (%)	**Instrument Reading (%)**
5.0	4.9
15.0	15.2
50.0	48.6

Carbon Dioxide (CO2)	
Certified Gas (%)	**Instrument Reading (%)**
5.0	5.0
15.0	15.3
50.0	51.4

Oxygen (O2)	
Certified Gas (%)	**Instrument Reading (%)**
20.7	20.3

As received Gas readings recorded at: 33.6 °C/92.5 °F
As received Barometric Pressure recorded at: 23.2 °C/73.8 °F

End of Certificate

WWW.LANDTECNA.COM
QED Instrument Services Facility - 2355 Bishop Circle West, Dexter, MI. 48130

CERTIFICATION OF CALIBRATION

ISSUED BY: QED Environmental Systems, Inc. Services Facility

Date Of Calibration: November 20, 2019

Certificate Number: G501950_9/37950

PJLA Calibration

No. 66916

Approved By Signatory

Timothy Hutchins
Laboratory Inspection

QED Environmental Systems, Inc. Services Facility,
2355 Bishop Circle West, Dexter, MI 48130
www.qedenv.com

LANDTEC

Customer: ***DIAMOND SCIENTIFIC***

PO BOX 348
MIMS, FL 32754
USA

Description: Gas Analyser

Model: GEM5000

Serial Number: G501950

Accredited Results:

Methane (CH4)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.42
15.0	14.9	0.66
50.0	49.5	1.03

Carbon Dioxide (CO2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.43
15.0	14.8	0.71
50.0	50.2	1.19

Oxygen (O2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
20.9	21.0	0.25

Gas cylinders are traceable and details can be provided if requested.

CH4, CO2 readings recorded at: 30.1 °C/86.2 °F Barometric Pressure: 29.19 "Hg

O2 readings recorded at: 21.4 °C/70.5 °F

Method of Test: The analyzer is calibrated in a temperature controlled chamber using reference gases. All analyzers are calibrated in accordance with our procedure ISP-17 using high purity grade gas.

All calibrations are performed in accordance with ISO 17025 at LANDTEC, an ISO 17025:2005 – accredited service facility through PJLA.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATION OF CALIBRATION

PJLA ACCREDITED CALIBRATION LABORATORY NO. 66916

Certificate Number
G501950_9/37950

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.

Non Accredited results:

Pressure Transducers (inches of water column)					
Transducer	**Certified (Low)**	**Reading (Low)**	**Certified (High)**	**Reading (High)**	**Accuracy**
Static	0"	0.00"	40"	40.25"	2.0"
Differential	0"	0.00"	4"	3.97"	0.7"

Barometer (mbar)	
Reference	**Instrument Reading**
0988 mbar / 29.19 "Hg	0988 mbar / 29.19 "Hg

End of Certificate

WWW.LANDTECNA.COM
QED Instrument Services Facility - 2355 Bishop Circle West, Dexter, MI. 48130

CERTIFICATION OF CALIBRATION

PJLA Calibration
No. 66916

Date Of Calibration: 29-Oct-2020

Certificate Number: G503692_9/40321

Issued by: QED Environmental Systems Inc.

Customer: **DIAMOND SCIENTIFIC**
PO BOX 348 MIMS, FL 32754 USA

Description: Landtec Gas Analyzer

Model: GEM5000

Serial Number: G503692

Accredited Results:

Methane (CH4)

Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.8	0.42
15.0	14.8	0.66
50.0	49.7	1.03

Carbon Dioxide (CO2)

Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
4.9	4.9	0.43
15.0	14.9	0.71
50.0	50.1	1.19

Oxygen (O2)

Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
20.9	21.0	0.25

Gas cylinders are traceable and details can be provided if requested.

CH4, CO2 readings recorded at: 30.9 °C/87.7 °F

Barometric Pressure: 0977"Hg/28.86 "Hg

O2 readings recorded at: 21.5 °C/70.7 °F

Method of Test : The analyzer is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure ISP17.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

www.qedenv.com (800) 624-2026 info@qedenv.com

QED Environmental Systems Inc. 2355 Bishop Circle West, Dexter, MI 48130

CERTIFICATION OF CALIBRATION

PJLA Calibration
No. 66916

QED

Date Of Calibration: 29-Oct-2020

Certificate Number: G503692_9/40321

Issued by: QED Environmental Systems Inc.

Non Accredited results:

Pressure Transducers (inches of water column)					
Transducer	Certified (Low)	Reading (Low)	Certified (High)	Reading (High)	Accuracy
Static	0"	0"	40"	40.12"	2.0"
Differential	0"	0"	4"	4.00"	0.7"

Barometer (mbar)	
Reference	Instrument Reading
0977 mbar / 28.86 "Hg	0978 mbar / 28.88 "Hg

As received gas check readings:

Methane (CH4)	
Certified Gas (%)	Instrument Reading (%)
5.0	5.4
15.0	15.6
50.0	49.0

Carbon Dioxide (CO2)	
Certified Gas (%)	Instrument Reading (%)
4.9	5.2
15.0	15.4
50.0	51.0

Oxygen (O2)	
Certified Gas (%)	Instrument Reading (%)
20.9	19.7

As received Gas readings recorded at: 30.9 °C/87.7 °F
As received Barometric Pressure recorded at: 21.5 °C/70.7 °F

As received gas check readings are only recorded if the instrument is received in a working condition.
Where the instrument is received damaged no reading can be taken.

Date of Issue : 30 Oct 2020

Approved By Signatory

Thakrah Alshaaban
Laboratory Inspection

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 107 IGC Instance: 107

www.qedenv.com (800) 624-2026 info@qedenv.com

QED Environmental Systems Inc. 2355 Bishop Circle West, Dexter, MI 48130